

#2

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/924,035

DATE: 08/21/2001
TIME: 09:25:28

Input Set : N:\EBONY'S\ES.txt
Output Set: N:\CRF3\08162001\I924035.raw

P5

4 <110> APPLICANT: Grlach, Jrn
6 <120> TITLE OF INVENTION: Expressed Sequences of Arabidopsis
7 thaliana
9 <130> FILE REFERENCE: 2011US
W--> 11 <140> CURRENT APPLICATION NUMBER: US/09/924,035
C--> 11 <141> CURRENT FILING DATE: 2001-08-07
13 <150> PRIOR APPLICATION NUMBER: US 60/148,784
14 <151> PRIOR FILING DATE: 1999-08-13
16 <160> NUMBER OF SEQ ID NOS: 900
18 <170> SOFTWARE: FastSEQ for Windows Version 3.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 427
22 <212> TYPE: DNA
23 <213> ORGANISM: Arabidopsis thaliana
25 <220> FEATURE:
26 <221> NAME/KEY: misc_feature
27 <222> LOCATION: (1)...(427)
28 <223> OTHER INFORMATION: n = A,T,C or G

ENTERED

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32 tgggtcaccaa gaagcgggtga caccaataac caaccgcgata gttggcctct tgaagatggg 120
33 cctcattctg atttcacggg acctacctcg ggggtgcacag cgtgtgtagc tcttattaaa 180
34 gataagaagc tctttgttgc aaatgccggt gactcacgtt gtgtgatatc aagaaagagt 240
35 caggettaca atctttctaa agatcacaa cctgatcttg aagttgaaaa agaaaggata 300
W--> 36 ttgnangctg gtggctttat tcacgctggg agaatcaatg gaagcttgaa tctgacaaga 360
37 gccattgggtg atatggagtt caagcagaat aagtttttac catctgaaaa gcaaattggtt 420
38 actgctg 427
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 206
42 <212> TYPE: DNA
43 <213> ORGANISM: Arabidopsis thaliana
45 <400> SEQUENCE: 2
46 agataatgaa catatttctg tccctgaagt ttttgctctc ttcagttgca agctccccta 60
47 tttcggtttg gaaacgtctg aggagttcaa tagcgatatt tctgaactcg ttttctcgtc 120
48 ctttcatgct cacaatcacc ttaacctgt caccatcttg caagaacttt tgggcagccc 180
49 ttagacgaac ggaataatca tgctga 206
51 <210> SEQ ID NO: 3
52 <211> LENGTH: 369
53 <212> TYPE: DNA
54 <213> ORGANISM: Arabidopsis thaliana
56 <220> FEATURE:
57 <221> NAME/KEY: misc_feature
58 <222> LOCATION: (1)...(369)
59 <223> OTHER INFORMATION: n = A,T,C or G
61 <400> SEQUENCE: 3
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63 cccacgttaa ttctctcttc tttgttttgt ttcagattca ttacttttct ccaaaaaact 120

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64 ttcttcaaga tctgttcttt taaataatta tggcggaaga acatcgatgc gagacgcctg      180
65 aaggtcaccg tctctgcgtt aacaactgcg gtttcttcgg aagctcagcg acaatgaatc      240
W--> 66 tatgttcaaa ctgttacggc gatctctgtc tcnaacaaca acaacaagct tccatgaaat      300
67 caaccgtcga atcatctctc tctccggtga tcgcacctgt tctcgaaaac tacgcggcgg      360
68 agttagaga                                     369
70 <210> SEQ ID NO: 4
71 <211> LENGTH: 430
72 <212> TYPE: DNA
73 <213> ORGANISM: Arabidopsis thaliana
75 <400> SEQUENCE: 4
76 ccatggcggtt agaactatgg caaactctca aagaagcaat ccatgcttac acaggtcttt      60
77 ctctgtttgt cttcttcaact gctctagctc tcgccttcgc catttaccaa gtcattctcag      120
78 gctgggtttgc ctgcgcgttc gatgatgtta accgacatca gagagctaga tctttggctc      180
79 aagaggagga gccaccgatt cctcagcctg ttcaagtcgg tgagatcacg gaggaggagc      240
80 ttaaacagta cgtatggctct gatcctcaaa agcccttctt tatggctatc aaacatcaga      300
81 tctatgatgt tacacaaagc aggatgttct acggaccagg aggaccatat gctttgtttg      360
82 cagggaaaga cgctagccga gctcttgcaa agatgtcatt tgaggagaaa gacttgactt      420
83 gggatgtctc                                     430
85 <210> SEQ ID NO: 5
86 <211> LENGTH: 106
87 <212> TYPE: DNA
88 <213> ORGANISM: Arabidopsis thaliana
90 <400> SEQUENCE: 5
91 cggtatcgat aagcttgata tcgaattcgc ggccgcgcac taattaatca tgctacatac      60
92 atagtcaaag ttcgtagtaa gtagacttag aaatagttac cgtagg      106
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 271
96 <212> TYPE: DNA
97 <213> ORGANISM: Arabidopsis thaliana
99 <400> SEQUENCE: 6
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101 atagtgaaga cgcccaatgc agtaaatccg ctcgatggg attattctcc acttctcacc      120
102 attgatacct gggagcacgc ttactatctg gattttgaga accgaagagc tgaatacata      180
103 aatacattca tggaaaagct tgtgtcatgg gaaactgtaa gcacaagggt ggaatccgca      240
104 attgctcgag cagtgcgaaag agaacaagaa g
106 <210> SEQ ID NO: 7
107 <211> LENGTH: 322
108 <212> TYPE: DNA
109 <213> ORGANISM: Arabidopsis thaliana
111 <220> FEATURE:
112 <221> NAME/KEY: misc_feature
113 <222> LOCATION: (1)...(322)
114 <223> OTHER INFORMATION: n = A,T,C or G
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118 aagaacagag acaattcaac acatgtaaat gcataaaatc aaacaaactg aaacacaaag      120
W--> 119 acatttcaaa cgaaagaact gagattgaag gaaccaatca tgtttgngng agcagaactc      180
W--> 120 atatctagct caagctgaag cttctgnggc tcaagctgtt gcctcaaaaac tggatcttcc      240
121 acttgctctg ttattgcagc tacttgttcc gtctgctcag tctccaaaac ctgaacagga      300

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322

122 acagattcag cagtcggtgt ct

124 <210> SEQ ID NO: 8

125 <211> LENGTH: 497

126 <212> TYPE: DNA

127 <213> ORGANISM: Arabidopsis thaliana

129 <400> SEQUENCE: 8

130	tttttttttt	tttttttaat	cataaaaatg	aaagcctctt	ccataggcag	aaacttacac	60
131	aaacatttga	gaattcacta	cttagacatt	gtctcttggt	actaccgagt	taaaaagatt	120
132	tacattactc	tcctcactcc	atcaacttct	ttgaattggt	ccatctctaa	ccaccatacg	180
133	gtaagccgag	cctaaggga	gtgtcggagc	tctcggagtc	aacaggcgct	ccggtagagt	240
134	ttccggcggt	agtaatagac	tccgacgact	gtccttcttc	gtacacagca	gcgttctcgg	300
135	attcagcacc	accgtgtgca	tgcacattgt	tacatatttg	catgccaaagt	cgctcgttct	360
136	cttcgcgttag	ttgcgttccc	tgcaaaaatc	aagacaaaac	atatcattaa	gttctctagc	420
137	taagtatttg	cattttgtgt	tttttagtggc	accatgtggt	ttgaatttct	ctagagatca	480
138	actaactacg	aatgagc					497

140 <210> SEQ ID NO: 9

141 <211> LENGTH: 347

142 <212> TYPE: DNA

143 <213> ORGANISM: Arabidopsis thaliana

145 <400> SEQUENCE: 9

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147	tggcaaagta	acttaaacaa	aaacaaaaac	acgggtaagg	gtctaaggga	aactacttaa	120
148	accagtaaga	aaaccgatca	ctatcttcat	ttcatttgaa	tcaacataag	atctcaagat	180
149	gcgtttgtat	ttgcccggtt	taccagacca	ggtagacttg	ttgatgatcg	cttaattctt	240
150	agccagtact	cgttatacac	ttttttcctc	gacatcttct	cgaagaatct	actccaacct	300
151	tccataactc	gggtcagcct	aacactcttg	ggtcttctca	taaggta		347

153 <210> SEQ ID NO: 10

154 <211> LENGTH: 216

155 <212> TYPE: DNA

156 <213> ORGANISM: Arabidopsis thaliana

158 <400> SEQUENCE: 10

159	tttttttttt	tttttccaga	aaaaaggaca	agccaataaa	acatagattg	tctacacaca	60
160	cacttctctt	aaaaatacaa	actttgagga	aacgagagaa	actttgaaag	ccatacatac	120
161	aatacaagag	tgttttgatg	gagggaggtc	ttaaaagtcg	agattggagg	aaggattcgg	180
162	gtatccttta	tactcaaatt	gtttcttgga	aaagcc			216

164 <210> SEQ ID NO: 11

165 <211> LENGTH: 329

166 <212> TYPE: DNA

167 <213> ORGANISM: Arabidopsis thaliana

169 <400> SEQUENCE: 11

170	tttttttttt	tttttttttt	tttttttttg	gaggagaaga	gctgaatttt	tctaattaat	60
171	aaataaaatt	tggagcccat	aatttacatt	gctatatctc	tctatagctc	ctggcttcga	120
172	agtaatttta	tcacgtccca	cacaaaaaaa	acctatttcg	agtatacaaa	ctactaatta	180
173	aatcggaacc	actgtgccca	cttttctttt	ctatcagaga	aactaaatca	gccagtgcct	240
174	cgctttgcaa	attacatcct	gcagtgtagc	agacaaggcc	aagattctga	accgatattg	300
175	aagagagagt	caacaacatc	atacaagt				329

177 <210> SEQ ID NO: 12

178 <211> LENGTH: 145

179 <212> TYPE: DNA

Input Set : N:\EBONY'S\ES.txt
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180 <213> ORGANISM: Arabidopsis thaliana
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183 ttttttttaaa caaacagtct acacatagac aactcaaagc caacaaatga acaaaaatat 60
184 aaaacatatg caaagataaa atatttataaa aaaggtaaca cggtgattat acatgagtat 120
185 acgtatatct atatatatac gtatt 145
187 <210> SEQ ID NO: 13
188 <211> LENGTH: 318
189 <212> TYPE: DNA
190 <213> ORGANISM: Arabidopsis thaliana
192 <400> SEQUENCE: 13
193 ttttttttta ttaatgattt ttattttttac atgcaaatta tacgactgaa atgttatagg 60
194 aatagagaca tgtttgatc acaaaaattaa cttatgtagg aaaaacaaat agtataagtc 120
195 tatcgttccc ctctctgttc aggcgtcaag cctcccttgc cacatttagg acaactcttc 180
196 ataccaaatc cttgacaatc aaaacatttc cacctctcaa acatatttcc gttcttctta 240
197 tttttacctg ttcccttgca accgggacat tcaattgctc ctttggctcc acaagtctca 300
198 caacttttga atatcgaa 318
200 <210> SEQ ID NO: 14
201 <211> LENGTH: 278
202 <212> TYPE: DNA
203 <213> ORGANISM: Arabidopsis thaliana
205 <400> SEQUENCE: 14
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207 caggctcaaa atcaatggga ccaaaaaaat atcaaagaaa cagcggattt tgacagtgtt 120
208 gtttagcact tttgcatcac ccaaagttct tatttcaaag ttttctcctt tttctcttat 180
209 cagtctgaga agtcatttaa aaaggaagag tttttaattg atgggttcct ttccgatggc 240
210 tttctggaca agcccggtt gctctttgac atggaaa 278
212 <210> SEQ ID NO: 15
213 <211> LENGTH: 276
214 <212> TYPE: DNA
215 <213> ORGANISM: Arabidopsis thaliana
217 <400> SEQUENCE: 15
218 ttttttttta gttaaaattt tattgattgc gctagtcatt ttatgtttta attcctaaaa 60
219 cctaagataa gccataaaaa aacatctcga aatatgacat caaaaatata acatttaatt 120
220 ccaaatatca gttctacaat atgggcaata aacattgggtg tctagccaag gcaataagca 180
221 tatggagtga aacttatggg cacatggtag gtgtaccaag gtctaccct tcttgaaccg 240
222 gtctagacat atagcacaat cttgttggtc ctaaac 276
224 <210> SEQ ID NO: 16
225 <211> LENGTH: 566
226 <212> TYPE: DNA
227 <213> ORGANISM: Arabidopsis thaliana
229 <220> FEATURE:
230 <221> NAME/KEY: misc_feature
231 <222> LOCATION: (1)...(566)
232 <223> OTHER INFORMATION: n = A,T,C or G
234 <400> SEQUENCE: 16
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236 tattcgaatc ttgatttttt tgttccaagt ataataaagg taacgtcaca tcagaaatct 120
237 atttatttcc caaacactaa ttgcacaaaa agcaaagtaa aaccactgtg atacaaatc 180
238 tataaagata aaaaaagtgt atgctcaatt aaataacgta aagaaaacta tattgacaaa 240

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239 taaagacaac aacgacggaa ataaacaact aaaaaccact ttcttttgatt tcacacaatt 300
240 ttagtgagtc aaaacgctgt gctgaagtag ctactcacca cattctcaca cagaatttgg 360
241 agaaccttag cattacttgg cttcacacat cttggcatct taaactgtcc agccgatgaa 420
242 ccaagcccga gaaaatgttc ttgaatcttc cggaaagtgc cttttgagac aactctcagc 480
W--> 243 tccaaggctc caatagtctt gcatttcggg nnnctaactg aaccgcgcatc gatgaatgct 540
244 cggctctaaac agttgcagca atcttg 566
246 <210> SEQ ID NO: 17
247 <211> LENGTH: 328
248 <212> TYPE: DNA
249 <213> ORGANISM: Arabidopsis thaliana
251 <400> SEQUENCE: 17
252 tttttttttt ttgttttcta ttttttgctt tcctaactcg catctgaagt ttccggatcg 60
253 ggtaatttgt ttaaataaac ccgttcaacg atccattaca cctcttaaac ccttctttac 120
254 tactacactc cataagatca tcattaatac gataatcact atgattatct acgtaatcat 180
255 gattaccacg ttgatgttga tgatgatgat gatgacgatt ccctcccgcc cccgcccgtt 240
256 ctaacgcata cacttgtgct ccaacctccg ccgcttttct ccttatatac gccgccgaca 300
257 tatctccacc accgttcaact cctcctcc 328
259 <210> SEQ ID NO: 18
260 <211> LENGTH: 315
261 <212> TYPE: DNA
262 <213> ORGANISM: Arabidopsis thaliana
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature
266 <222> LOCATION: (1)...(315)
267 <223> OTHER INFORMATION: n = A,T,C or G
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271 tataccaacg tctccattta gctcgaaacg cagcgtctca tagaagtga ctaatgctgc 120
272 ttttgcagca gaataaagac tcattccgtg tagaggcaac cagttttcaa ccgatgcatt 180
273 cacgactatt cggccattcg tctggtgaag gtatggcaac gctacgtatg tcggataaac 240
274 attccccccg aagtttatgt ccagcaaagt tggaacacac gtcgtgtcac tcacttcctc 300
275 aaagtaaaaa gtgtg 315
277 <210> SEQ ID NO: 19
278 <211> LENGTH: 292
279 <212> TYPE: DNA
280 <213> ORGANISM: Arabidopsis thaliana
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284 aagaaaaaga acaatggaaa ttttggggct aagtactctt tgtttttggt ttctcagaac 120
285 agatgaaaca atcttaaagg gttgtttcgt tcattctcta gacttctttt ttgaggcctt 180
286 agaggaaagg gcaggtgcat tccctttaga actggccact tggtttgact ttgaagtga 240
287 aggagctgct tcttgtttat ccttggtcac cgcacctgc gagccacgga tt 292
289 <210> SEQ ID NO: 20
290 <211> LENGTH: 137
291 <212> TYPE: DNA
292 <213> ORGANISM: Arabidopsis thaliana
294 <400> SEQUENCE: 20
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296 acatctacaa agatttcact acatcctgaa accaaacct tcgtcctaatt ttacaaaacc 120

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→ Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY

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L:11 M:282 W: Numeric Field Identifier Missing, <140> CURRENT APPLICATION NUMBER: is Added.
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:36 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:606 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:633 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50
L:775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52
L:776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52
L:791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53
L:830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55
L:871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58
L:872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58
L:966 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65
L:1009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68
L:1034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70
L:1192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:1258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88
L:1398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98
L:1434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
L:1452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102
L:1476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:1494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104
L:1560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108
L:1561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108
L:1620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112
L:1660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115
L:1677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:116
L:1698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117
L:1714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:118
L:1732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119
L:1739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119
L:1765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121
L:1767 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121
L:1784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122
L:1785 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122
L:1787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122
L:1844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127
L:1879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129
L:1925 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132

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L:1994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:2097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145
L:2112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146
L:2191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152